

CHAPTER 3 - PLAN RESPONSIVENESS TO ISSUES, CONCERNS, AND OPPORTUNITIES

This chapter is included to describe how this Forest Plan responds to the major issues, concerns, and opportunities identified during the planning process. The major ICO's and their development are discussed in detail in Chapter I, and Appendix A of the FEIS accompanying this Plan. The reader is encouraged to review those sections.

The major issues, concerns, and opportunities are:

- o Development versus Nondevelopment of the Forest
- o Timber Supply
- o Old Growth Ecosystems and Fish, Wildlife, and Plant Diversity
- o American Indian Religious and Cultural Use
- o Recreation Opportunities
- o Wild and Scenic Rivers
- o Management of Municipal Watersheds
- o Effects of Timber Management and Related Activities
- o Adjacent and Intermingled Lands

Implementation of this Plan will result in rather subtle changes during the first 10 to 15 years (the planning period). The forest visitor will not observe drastic changes from the way the Forest is currently being managed; however, the issues and concerns have focused attention on past forest management practices. These practices have been reviewed and revised, as indicated on the following pages, to address the ICO's.

OVERALL EMPHASIS OF THE FOREST PLAN

The Land and Resource Management Plan reflects the importance of the Mt. Baker-Snoqualmie National Forest as a vital and major contributor of recreation opportunities, plant and animal diversity, and forest goods and services to the Puget Sound region, the Pacific Northwest, and the nation. The Plan recognizes the interrelationships of the many and varied resources of the Forest. It attempts to carefully balance the importance of the nonmarket resources such as dispersed recreation opportunities, scenic quality, fish, wildlife, water, and air quality with the continued use of the Forest to produce sustained yields of timber. As choices were made among individual resources, the tradeoffs and compromises between nonmarket values and market values were given careful consideration.

The Forest Plan emphasizes unroaded recreation; protection of scenery along major highway corridors; increased big game populations; an increase in the Wild and Scenic Rivers System; high quality water; and stable supplies of wood fiber. The Plan maintains roadless areas; provides wildlife habitat for game and nongame wildlife species to maintain viable populations; and provides for increased trail development.

PLAN RESPONSIVENESS TO THE ICO'S

Development versus Nondevelopment of the Forest

How should the released, unroaded areas be allocated and how will the resources be managed?

At what rate should the Forest Service enter those roadless areas that are allocated for development?

Background: There are approximately 403,000 acres of undeveloped, unroaded lands that were released from wilderness consideration by the Washington State Wilderness Act of 1984. Until the Forest Plan is revised, either at the 10-15 year update or during any earlier revisions, these acres are available for a full range of resource uses. The allocation and management of these acres continues to be a highly controversial issue. The areas contain a wide variety of resource values.

Response: In this Forest Plan, 309,214 acres (77 percent of the "released" acres) are maintained in a roadless character. The remaining 93,716 acres (23 percent) are allocated to various levels of development involving road construction and production of both market and nonmarket outputs.

The total Forest acres assigned to nondevelopment land allocations including wilderness, wildlife habitat areas, dispersed recreation areas, and research natural areas are about 1,132,000 acres or 66 percent of the entire Forest.

Management of the roadless areas on the Forest will proceed according to their land use allocations. Approximately 20,000 acres of the 94,000 acres of roadless area allocated to development will be affected by development (including timber sales) in the next 10 years and no longer meet the definition of roadless as used in RARE II. By the end of fifteen years, an additional 12,000 acres of roadless areas will be affected by development. Proposed development activities scheduled for roadless areas will receive appropriate environmental analysis and documentation before they are implemented.

Table 3-1 shows the general assignment of the unroaded areas, by parcel. This table refers to the acres allocated to development or nondevelopment prescriptions; the acres shown are those ultimately remaining either undeveloped or developed. Refer to Appendix C, FEIS, for more information.

Table 3-1
Roadless Area Disposition – Acres

<u>Area</u>	<u>Developed</u>	<u>Undeveloped</u>
Mt . Baker (Canyon Creek)	2,976	22,070
Mt . Baker (North Block)	5,612	9,688
Mt. Baker (West Block)	2,152	5,486
Mt. Baker (South Block)	10,813	17,130
Mt. Baker (Noisy-Diobsud)	4,223	44,899
Oakes Peak	654	1,752
Alma Copper	569	2,153
Hidden Lake	2,850	378
Glacier Peak H	11,373	695
Glacier Peak I	0	2,360
Glacier Peak G	3,482	6,776
Glacier Peak J	950	6,441
Glacier Peak M	6,083	5,786
Glacier Peak A	9,905	8,359
Glacier Peak L	14,598	360
Glacier Peak B	443	11,867
Glacier Peak K	15,164	38,733
Pressentin	7,157	7,517
Higgins Mountain	2,237	1,603
Prairie Mountain	5,465	1,625
White Chuck Mountain	274	4,092
Boulder River	42	1,244
Eagle Rock	105	3,417
Tolmie Creek	7,900	5,660
Clearwater	1,585	4,120
Lonesome Lake	26,842	31,551
Sun Top	0	4,711
Silver Creek	253	1,142
Norse Peak	<u>950</u>	<u>6,676</u>
 TOTAL	 93,716 (23 %)	 309,214 (77 %)

Timber Supply

What is the capability and suitability of the Forest to produce timber? What should the timber harvest level be, considering all resources on the Forest and their relationship to social, economic, and environmental factors including local, regional, and national demands?

Background: A key public issue and management concern, and an area of great controversy. Additional facets are the amount of old growth remaining and jobs. While the timber industry is a small part of the overall Puget Sound economy, it is still important; lumber production provides just over 4% of the wage and salary jobs in Skagit County, 2-3% of wage jobs in Whatcom, Pierce, and Snohomish Counties, and less than 1% in King County (1988). About 35 percent of the total Mt. Baker-Snoqualmie acres were tentatively suitable.

Response: Timber production will occur at levels that are consistent with providing for increased emphasis on unroaded recreation; greater protection of scenic values on travel corridors; increased miles of trails; increased number of rivers recommended for Wild and Scenic River designation; and allocation of three Special Areas. Timber will be managed on about 346,000 acres, of which about 49 percent will be managed on long rotations of 100 years or more to meet nontimber resource objectives. About 2,900 acres are clearcut annually. Approximately 1,000 acres are precommercially thinned and 200 acres commercially thinned each year to improve stand density and species mix.

Timber is managed on a nondeclining flow harvest schedule. This harvest level reflects a balance between jobs, demand for wood products, income to the Treasury, and protection of the various nonmarket values desired by Forest users. The first decade ASQ is 108 MMBF. All of the ASQ assumes the use of even-aged silvicultural practices. Uneven-aged silviculture practices are considered in the project planning process, as individual stands are investigated for harvest opportunities.

The tentatively suitable acres not selected for timber production include those necessary to meet viable population levels for wildlife species dependent on mature and old-growth forest habitat, and portions of the riparian zone necessary to provide for the protection of riparian values. The tradeoffs are minimized through selection of most MR acres from lands that are not tentatively suitable and those that would be assigned to produce at reduced yield. Only those MR acres necessary for wildlife population dispersion requirements and those necessary to insure hydrologic cumulative effects do not result in unacceptable adverse effects are located on tentatively suitable lands. Annual timber outputs for Decades I and 5 of the Forest Plan are compared to the planned historic outputs in the table below.

Table 3-2
Planned Historic and Forest Plan Timber Outputs

	Historic <u>1979-88</u>	Plan Implementation	
		<u>Decade I</u>	<u>Decade 5</u>
Long-term Sustained Yield Capacity 1/			
- Million Cubic Feet	Not	30.4	----
- Million Board Feet	Calculated	----	----
Allowable Sale Quantity			
- Million Cubic Feet	47.0 22.4	29.	
- Million Board Feet	229.8	108.0	----
Suitable Land			
- Thousand Acres	547.0	346.0	346.0

1 - Board foot volume not calculated for long-term sustained yield capacity.

Old Growth Ecosystems and Fish, Wildlife, and Plant Diversity

What management direction is needed and where should action be taken that will maintain and/or enhance old growth and diversity to meet multiple use objectives?

Background: Old-growth and maintenance of diversity is of particular concern and has become a significant and controversial agency and public issue. In the past, much of the focus for this issue has been spotted-owl habitat; the issue now has a much wider scope. Old growth contains a wide variety of resource values, including wildlife habitat, aesthetic, forest diversity, recreation, and commercial timber. These areas are also valued by American Indians for religious and cultural use. In addition, there is increasing recognition within the scientific community that ecosystem diversity is important. Nearly all of the old-growth forest that remains in the Puget Sound Area is located in the National Forests or National Parks.

The most recent (1976) vegetation inventory for the Forest, updated to reflect harvest through 1988, indicates there are about 643,500 acres of old growth (trees 2111 or greater DBH) within the Forest. Approximately 232,500 acres (36%) are located in wilderness and not available for harvest. An additional 134,400 acres outside wilderness are considered unsuited for timber production (either withdrawn from timber production or unsuited because of highly unstable soils and difficulty in reforesting the areas).

The northern spotted owl is closely related to the old-growth issue. About 500,000 acres of suitable spotted owl habitat have been identified on the Forest. Between 1980 and 1989, 55 pairs of spotted owls and 177 individuals have been sighted on the Forest. The FSEIS amending the Regional Guide estimated spotted owl habitat capability on the Forest at 121 pairs.

The Forest provides habitat for a variety of wildlife species, including four federally-listed threatened and endangered species. The variety of elevation, aspect, soil depth, climate, and vegetation create a naturally diverse mosaic of habitats within the Forest boundary. An important facet of this issue is the distribution and protection of suitable habitat to ensure species viability through genetic exchange.

There are approximately 1,500 stream miles and over 12,000 lake acres on the Forest that serve as both seasonal and year-round spawning and rearing habitat for anadromous and resident species. Indian tribes, sport and commercial fishing interests, and state and federal fishery agencies are increasingly concerned about the effects of water quality on the anadromous fish resource.

Response: The Forest Plan maintains approximately 502,500 acres of old growth in allocations not suitable for timber production (e.g. wilderness, unstable soils, regeneration difficulties, dispersed recreation, special areas, spotted owl habitat, mountain goat habitat, Research Natural Areas, etc.). No areas are specifically allocated for old-growth management for amenity values. At the end of the first decade, 624,500 acres of the current 643,500 acres of inventoried old-growth is expected to remain.

A spotted owl habitat network consisting of 76 habitat areas each containing 2,200 acres, if possible, is established. The network consists of dedicated SOHA's outside wilderness areas, habitat areas in

Wildernesses, and other habitat areas in management areas without scheduled timber harvests. Other spotted owl habitat outside the network remains available for the owl as a result of other allocation decisions that preclude development of those acres. Of the nearly 500,000 acres of suitable spotted owl habitat on the Forest, about 350,000 acres (71%) will be protected in SOHA's and through other allocation decisions.

Further changes in direction for protection of spotted owl habitat are likely. The recent release of the report of the Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl and the upcoming decision of the U.S. Fish and Wildlife Service on the listing of the species may require changes in the direction of the Forest Plan. As new national and regional direction is established, the Plan will be amended to incorporate that direction.

The Forest Plan allocates 174,000 acres specifically for the protection, maintenance, and/or improvement of wildlife habitat including the 54,200 acres specifically set aside for northern spotted owl habitat. Allocations made specifically for other wildlife habitat protection, improvement, and maintenance are:

19,300 acres for pine marten, pileated woodpecker, and associated species;
47,000 acres for riparian dependent species and fish habitats;
34,000 acres for deer and elk habitat;
17,100 acres for mountain goat habitat; and
2,800 acres for northern bald eagle habitat.

Land allocations and standards and guidelines are used to meet part of the riparian management requirements and fish habitat needs. To fully meet riparian and water quality management requirements, a constraint is established on the maximum number of acres that can be harvested in a given watershed in a decade. These limits on final harvest are incorporated as Forest Plan standards and guidelines. High levels of investments will be made in habitat improvement projects to benefit anadromous and resident fish.

Classification is recommended for five new Research Natural Areas, totaling 9,306 acres: the North Fork Nooksack Addition, Lily Lake, Perry Creek, Green Mountain, and Chowder Ridge. The three existing RNA's are retained.

One botanic area is allocated - Sulphur Creek Botanic Area; it contains a unique, low-elevation vegetative community (silver fir and associated species) on a lava flow. Two other special areas are allocated: Mather Memorial and Heather Meadows.

American Indian Religious and Cultural Use

What policy and management direction is needed to comply with the Native American Religious Freedom Act and various treaties?

What are the effects of meeting this direction in terms of outputs, costs?

Background: At least 23 American Indian tribes have occupied or used territory within the National Forest boundary. Currently, about 15 tribal groups use the

Forest for religious, ceremonial, and/or cultural purposes. The Forest has inventoried 450,000 acres of use areas and sites. Of concern to a number of the Tribes are the effects of management activities on water quality and protection and enhancement of anadromous fisheries. Cedar is also an important resource.

Response: High protection of religious and cultural use areas for American Indians will be provided on lands where no timber harvest or road construction is planned and lands where the expected frequency of human contact is low. Moderate protection includes areas where no timber harvest or road construction is planned, but where human encounters are more likely. The Plan will afford a high to moderate degree of protection for the following acres, displayed in Table 3-3. Lands are not specifically allocated to "Indian Religious Use" nor are these acres shown on the map, to protect confidentiality. A total is not appropriate here, as there is overlap among acres protected.

The existing consultation process (with Tribes prior to any ground-disturbing project proposed in a use site or area) is continued.

Table 3-3
Religious and Cultural Use Areas With Moderate to
High Protection From Development

Approximate Acres

<u>Type of Sites/Area</u>	<u>Type of Protection</u>		<u>Total Area Managed for Nondevelopment</u>
	<u>Moderate</u>	<u>High</u>	
Spirit Quest Sites	13,326	59,532	72,858
Legend Sites	1,288	3,083	4,371
Cedar Areas	15,543	50,262	65,805
Ceremonial Flora Areas	19,809	73,238	93,047
Cemeteries	0	317	317

In addition, the Plan will provide for a high level of investment for habitat enhancement for anadromous (and resident) fish. The hydrologic cumulative effects management requirement is designed to insure that effects of management activities prescribed by this Plan meet the intent of water quality laws and regulations.

A Forest-wide standard and guideline is included in this Plan to favor regeneration of western red cedar on sites where it now occurs or where it could successfully occur.

Recreation Opportunities

To what extent can the Mt. Baker-Snoqualmie provide recreation opportunities and how should they be managed.

Background: The Mt. Baker-Snoqualmie contains some of the most scenic areas in the State. Its proximity to the major metropolitan areas along Puget Sound and the variety of opportunities available is reflected in the continual growth of recreation use. Use is now approximately five million RVD's per year (1989). It is expected that the demand for recreation on the Forest will grow through the end of the century.

The Recreation Opportunities issue includes several sub-issues or facets. The more significant ones are: developed recreation needs and opportunities; dispersed recreation needs and opportunities, including roadless and undeveloped areas; wilderness use and management; and trail needs and opportunities.

The Forest has 38 campgrounds that can accommodate about 500,000 recreation visitor days use per year. There are seven alpine ski areas that can accommodate approximately 40,000 skiers at one time. Trail mileage on the Forest is made up of 849 miles outside wilderness and 545 miles within wilderness. A variety of types of trails are provided, but the majority are hiker and pack and saddle trails. The Forest contains all or parts of eight wilderness areas with a total of approximately 722,000 acres within the Forest. Developed recreation demand (primarily alpine skiing and developed campgrounds) is well below the Forest capacity. Roaded dispersed recreation capacity far exceeds current use. Unroaded dispersed recreation use outside wilderness currently exceeds the capacity of the Forest. Wilderness use is nearing the practical capacity of the Forest. It is likely that wilderness demand will exceed capacity in the near future.

Response: In this Plan, the overall emphasis will continue to be on dispersed recreation; however, future demand for developed recreation is also addressed.

Developed Recreation. Rehabilitation of existing sites would be a top priority; about 10% of existing units will be reconstructed each year for the next ten years. In the first decade, approximately 100 new units (500 people at one time) would be added to existing campgrounds to provide additional capacity if needed. Limited expansion of day use facilities will occur to meet projected increases in demand

Dispersed Recreation and Trails. Land allocations in the Forest Plan result in approximately 27 percent (273,400 acres) of the Forest outside wilderness being available for nonwilderness, unroaded dispersed recreation. The majority of these opportunities will be in the semi-primitive nonmotorized recreation opportunity spectrum (ROS) class. This will provide alternatives to recreationists impacting wilderness, and help reduce conflict between different recreation uses groups in other areas.

Approximately 200 miles of new, nonwilderness trail will be constructed in the first decade; 30.5 of these will be open to motorized use. Trail reconstruction, first decade, will be done on another 493 trail miles.

These trails will generally be constructed in the semi-primitive nonmotorized and roaded natural ROS areas. Trail system planning will become an integral part of all project planning to assure continuation of a top-quality trail program. Approximately 25 miles of existing roads will be closed to passenger vehicles to provide more opportunity for unroaded dispersed use and discourage access to over-used, fragile destination areas. Management direction in the Mt. Baker National Recreation Area will provide for motorized use (snowmobiles) during those months with adequate snow cover, and for nonmotorized use during the remainder of the year.

Wilderness. The physical, social, and managerial settings within wilderness would be managed to meet standards set under Limits of Acceptable Change (LAC's) in the wilderness recreation spectrum (WRS). Approximately 20 miles of new trail would be built. Within wilderness, General Trailless areas (457,000 acres) will usually remain trailless; Dedicated Trailless areas (191,600 acres) will be managed forever trailless.

Visual Quality. The public concern for the visual condition of the Forest is addressed in this Plan: 23,400 acres of scenic viewshed, foreground and 95,800 acres middleground, along heavily-used, scenic highways are managed for visual quality and other resource uses. Standards and guidelines provide for timber harvest at 65 percent of full yield on the suitable acres in the foreground, and 86 percent of full yield on suitable middleground acres.

Wild and Scenic Rivers

How should the potential wild and scenic rivers of the Forest be managed and their values protected?

Background: There is one designated Wild and Scenic River on the Mt. Baker Snoqualmie - the Skagit, designated in 1978. Portions of the Skykomish River are designated a State Scenic River (applicable to city, county, and state lands). There are 47 eligible rivers on the Forest; outstandingly remarkable values include fisheries, scenery, wildlife, recreation, and ecology. There is considerable public and agency interest in this issue.

Response: In this Forest Plan, 30 rivers - totaling 451.8 miles - are recommended for inclusion in the National Wild and Scenic River System. Until Congressional action, the values contributing to a river's particular classification (wild, scenic, or recreation) will be protected. Forest lands adjacent to the 30 suitable rivers will be managed to maintain their eligibility. Refer to Appendix E, FEIS for more detailed information.

Skagit Wild and Scenic River. Management direction for this Congressionally designated river system (158.5 miles and totaling 38,939 acres) will follow the River Management Plan, Skagit River Record of Decision, August 8, 1984, which is incorporated into the Forest Plan.

Management of Municipal Watersheds

What activities should be permitted within municipal watersheds?

What measures should be taken that will maintain or enhance water quality?

Background: The Forest contains a significant portion of the watersheds supplying the cities of Seattle, Bellingham, Everett, and Tacoma. A number of smaller municipalities also obtain water from the Forest. Maintaining high water quality is an objective of many agencies and individuals; there is concern about the effects of management activities, including recreation, on water quality. In the Cedar River Watershed, the management goals of the 1962 Agreement (between the City of Seattle and the Forest Service) have recently been modified for city-owned lands, by the City of Seattle's Secondary Use Policies.

Response: Best Management Practices for this Plan are described in Appendix I. In addition, the Plan responds to this issue by meeting water quality management requirements, which are expressed as a maximum number of acres available for final timber harvest, by watershed. Refer to Chapter 4 of this document, Forest-wide Standards and Guidelines for Water Resources and Riparian Areas. Water quality will be maintained or enhanced by adherence to Regional and Forest standards and guidelines. Maintenance of riparian values in riparian areas is emphasized and timber yields in those management areas will be approximately 63 percent of full yield. In all municipal watersheds, water and water quality are recognized as key resources.

In the Cedar River Watershed, the Forest Service will initiate negotiations on a new Cooperative Agreement between the City of Seattle and the Forest to re-establish goals and objectives for management of the watershed. Until a new agreement is negotiated, the Mt. Baker-Snoqualmie will not enter new land exchanges affecting National Forest land in the watershed. Pending a new agreement, the 1962 Agreement will remain in effect. When a new agreement is reached, the Forest Plan will be amended to incorporate its goals and direction.

The Green River Watershed will be managed under the terms of the 1984 Memorandum of Understanding with the City of Tacoma. As land exchanges are completed with the City, public use rights are relinquished on roads no longer needed to access National Forest land. Dispersed recreation is emphasized; overnight camping is allowed.

The Sultan River Watershed will be managed under the terms of the 1963 Memorandum of Understanding between the Forest Service, the City of Everett, and the Snohomish County Public Utility District. Management emphasizes watershed protection, recreation use at developed sites (no water contact sports), timber production, and maintenance of fish and wildlife habitat. Dispersed recreation is permitted, but not encouraged.

Other municipal watersheds will be managed for a full range of outputs, including timber harvest and recreation. Road construction/reconstruction and maintenance are permitted. Dispersed recreation, including overnight use and ORV use, is permitted in designated locations.

Effects of Timber Management and Related Activities

What management direction is needed for timber harvest and road construction activities to benefit or maintain the quality of other resources?

Background: Management for the commercial production of timber includes a number of activities: road construction and/or reconstruction, preparation of the land for planting seedlings, possible thinning, etc. These activities have direct and indirect effects on other resources, including: fish and wildlife habitat, soil, and water. Also, recreation opportunities and the visual condition of the Forest change in response to these activities. For example, the visual impact of clear-cutting and loss of habitat for some wildlife species is a major concern of environmentalists, wildlife advocates, and some hunting interests.

Each step in the process of timber harvesting, including road construction, may have a number of short-term and long-term impacts. Timber harvesting may enhance elk habitat (increased forage in clearcuts) but reduce the visual quality and the amount of wildlife habitat available for species dependent on mature conifer forests.

Response: Unacceptable adverse effects to Forest resources will be prevented or mitigated using the Regional, Forest-wide, and management area standards and guidelines. Best Management Practices will be selected and applied (site-specific) to achieve water quality regulations. Refer to Appendix I of the FEIS. To fully meet riparian and water quality management requirements, a constraint is established on the maximum number of acres that can be harvested in a given watershed in a decade. These limits on final harvest are incorporated as Forest-wide Standards and Guidelines.

An environmental analysis will be prepared for each project to assess the impacts on other resources, unit size and dispersion requirements, logging methods and practices, road location, design and construction standards, silvicultural prescriptions, and other pertinent considerations. Analysis will include appropriate documentation, to meet the National Environmental Policy Act (NEPA) and implementing regulations.

Adjacent and Intermingled Lands

How should National Forest lands adjacent to lands of non-federal owners be managed?

What management activities should be conducted on National Forest lands that are located near private development?

Background: Thirteen percent of the lands within the Mt. Baker-Snoqualmie National Forest are non-Federal, located mostly in the south half of the Forest. In most cases, the objectives and subsequent land practices of the non-Federal owners differ from those of the Forest Service, yet directly affect management of National Forest lands. Concern and conflicts arise because of these different management practices. For example, it is not uncommon that old-growth National Forest lands are surrounded by harvested lands in other ownership.

Response: In this Forest Plan, Best Management Practices will be selected and applied for site-specific projects, to achieve water quality regulations. Refer to Appendix I of the FEIS. In addition, to fully meet riparian and water quality management requirements on National Forest lands, a constraint is established on the maximum number of acres that can be harvested in a given watershed in a decade. These limits on final harvest are incorporated as Forest-wide Standards and Guidelines. It is the intent of this Plan that the quality and quantity of these resources not be diminished, but maintained at current levels or improved, if possible. Specifically, this means that timber harvest activities on National Forest lands will be deferred if the MR's for wildlife, soil, and water cannot be met.

A Land Adjustment Plan has been developed and is included as Appendix G in this Forest Plan. The goal of landownership adjustment is to achieve an ownership pattern that best accommodates the land and resource objectives of this Forest Plan. There will be a continued need for road cost-share agreements until such time as ownership consolidation is achieved.

National Forest management adjacent to privately owned lands will be coordinated with approved County Plans and County Planning Departments.